

CLAIMS

1. An adhesive comprising polyisocyanate and a polyol comprising at least one dimer fatty acid and/or dimer fatty diol.
2. An adhesive according to claim 1 wherein the polyisocyanate has a viscosity in the range from 100 to 300 mPa.s.
3. An adhesive according to either one of claims 1 and 2 wherein the dimer is formed from C₁₄ to C₂₂ alkyl chains.
4. An adhesive according to any one of the preceding claims wherein the dimer comprises in the range from 10 to 30% by weight of trimer.
5. An adhesive according to any one of the preceding claims wherein the polyol comprises a polyester.
6. An adhesive according to claim 5 wherein the dicarboxylic acid component of the polyester is substantially all dimer fatty acid.
7. An adhesive according to either one of claims 5 and 6 wherein the diol component of the polyester comprises ethylene glycol and/or propylene glycol.
8. An adhesive according to any one of claims 5 to 7 wherein the molar ratio of the diol and dicarboxylic acid present in the polyester is in the range from 1.15 to 2:1.
9. An adhesive according to any one of claims 5 to 8 wherein the molecular weight of the polyester is in the range from 800 to 2,500.
10. An adhesive according to any one of claims 5 to 9 wherein the glass transition temperature (T_g) of the polyester is in the range from -50 to -20°C.
11. An adhesive according to any one of the preceding claims having a molecular weight in the range from 650 to 1,500.

12. An adhesive according to any one of the preceding claims having an isocyanate content in the range from 12 to 30% NCO.

13. An adhesive according to any one of the preceding claims comprising in the range from 14 to 30% by weight of dimer fatty acid and/or dimer fatty diol.

14. An adhesive according to any one of the preceding claims having a lap shear adhesion value of greater than 6 MPa.

15. An adhesive according to any one of the preceding claims having a creep rupture adhesion value at a stress value of 8 MPa of greater than 1,000,000 seconds in air at 23°C.

16. An adhesive according to any one of the preceding claims having a creep rupture adhesion value at a stress value of 6 MPa of greater than 2,500 seconds in water at 90°C.

17. An adhesive according to any one of the preceding claims having a creep rupture adhesion value at a stress value of 4 MPa of greater than 500,000 seconds in water at 90°C.

18. An adhesive according to any one of claims 16 to 17 wherein the creep rupture adhesion value in water at 90°C is at least 70% of the value in air at 23°C.

19. An adhesive according claim 18 wherein the creep rupture adhesion value in water at 90°C is at least 90% of the value in air at 23°C.

20. A substrate coated with an adhesive as defined in any one of the preceding claims.

21. The use of an adhesive as defined in any one of claims 1 to 19, to adhere wood.

22. Wooden joists, wooden frames and/or external wooden cladding adhered together using an adhesive as defined in any one of claims 1 to 19.